

I Claim:

1. A pipe test plug for sealing and pressure testing a water utility supply line or other pressurized pipe, the test plug comprising:

- a) a plug body sized and shaped for insertion into an open end of a water supply line, the plug body having an inner and an outer end;
- b) the first and second spaced apart annular seals supported on the plug body, the first annular seal positioned closer to the inner end of the plug body than the second annular seal and the second annular seal positioned closer to the outer end of the plug body than the first annular seal, the annular seals and plug body together sealing the water supply line when the pipe test plug is inserted therein; and
- c) securing means for extending through at least one portion of the water supply line and into the plug body inserted therein for securing the pipe test plug in the water supply line under test pressure, the securing means received in the plug body between the second annular seal and the outer end of the plug body.

2. A pipe test plug as defined in claim 1 wherein the plug body includes first and second cylindrical seal plates, the first and second seal plate each defining a peripheral groove for respectively receiving and supporting the first and second annular seals.

3. A pipe test plug as defined in claim 2 wherein the first and second cylindrical seal plates are connected by a web portion.

4. A pipe test plug as defined in claim 3 and further comprising a mounting tab joined with the plug body and extending generally along the plug body and spaced therefrom to accommodate the distal end of a water supply line, the mounting tab defining an opening for guiding the securing means through the supply line and into the plug body.

5. A pipe test plug as defined in claim 4 wherein the securing means is a screw.

6. A pipe test plug as defined in claim 5 wherein the securing means is a self-tapping screw received and retained in the opening defined in the mounting tab, the self-tapping screw thereby being positioned for insertion through the supply line and into the plug body.

7. A pipe test plug as defined in claim 4 wherein the mounting tab is joined with the plug body by a stop extending from the plug body at or near the outer end thereof, the stop engaging the distal end of the water supply line when the pipe test plug is inserted therein.

8. A pipe test plug as defined in claim 7 wherein the securing means is a screw.

9. A pipe test plug as defined in claim 8 wherein the securing means is a self-tapping screw received and retained in the opening defined in the mounting tab, the self-tapping screw thereby being positioned for insertion through the supply line and into the plug body.

10. A pipe test plug as defined in claim 7 and further comprising an outer end plate connected by another web portion to the second cylindrical seal plate, the outer end plate defining the outer end of the plug body.

5 11. A pipe test plug as defined in claim 9 wherein the web portion connecting the outer end plate to the second cylindrical seal plate is disposed to receive the sealing means guided into the plug body by the mounting tab.

10 12. A pipe test plug as defined in claim 10 and further comprising an inner end plate connected by a further web portion to a first seal plate, the inner end plate being smaller than the first cylindrical seal plate to facilitate guiding the plug body into the distal end of the water supply line.

15 13. A pipe test plug as defined in claim 1 and further comprising a mounting tab joined with the plug body and extending generally along the plug body and spaced therefrom to accommodate the distal end of a water supply line, the mounting tab defining an opening for guiding the securing means through the supply line and into the plug body.

14. A pipe test plug as defined in claim 13 wherein the mounting tab is joined with the plug body by a stop extending from the plug body at or near the outer end thereof, the stop engaging the distal end of the water supply line when the pipe test plug is inserted therein.

20 15. A pipe test plug for sealing and pressure testing a water utility supply line or other pressurized pipe, the pipe test plug comprising:

- a) a plug body sized and shaped for insertion into an open distal end of a water supply line or other similar pipe, the plug body having
- 1) first and second spaced-apart cylindrical seal plates connected by a web portion of a web, the first and second cylindrical seal plates each respectively defining a peripheral groove,
 - 2) an inner end plate spaced apart from the cylindrical seal plate by another web portion of the web, the inner end plate being smaller than the first cylindrical seal plate for facilitating inserting the test plug into the open distal end of the water supply line,
 - 3) an outer end plate spaced apart from the second seal plate by a further web portion of the web and defining an outer end of the plug body;
- b) first and second annular O-ring seals deployed respectively in the grooves defined by the first and second cylindrical seal plates, wherein when the plug is inserted into the open distal end of the water supply line, the first and second seals seal to the interior of the water supply line and the seals and the plug body together seal the water supply line; and
- c) a mounting tab and stop integrally joined with the outer end plate of the plug body,

- 1) the stop extending outwardly from the outer end plate and limiting insertion of the pipe test plug into the open distal end of the water service line,
- 2) the mounting tab extending from the stop away from the outer end of the plug body and spaced from the plug body to accommodate the water service line between the mounting tab and the plug body, and
- 3) the mounting tab defining a guide opening for guiding a fastener through the water supply line and into the plug body between the second annular O-ring seal and the outer end of the plug body, thereby securing the pipe test plug in the distal end of the water supply line.

16. A pipe test plug as defined in claim 8 wherein the fastener is a self-tapping screw received and retained in the opening defined in the mounting tab, the self-tapping screw thereby being positioned for insertion through the supply line and into the plug body.

17. A method of pressure testing a water supply line connected to a water main, comprising the steps of:

- a) providing a pipe test plug sized and shaped for sealing the distal end of a water supply line upon insertion therein;
- b) inserting the pipe test plug in the distal end of a water supply line;

- c) securing the pipe test plug in the distal end of the water supply line by forming a first opening in the water supply line and inserting a fastener through the first opening and into the pipe test plug; and
- d) pressurizing the water main and water supply line and inspecting it for leaks.

18. A method of pressure testing a water supply line as defined in claim 17 wherein the step of securing the pipe test plug includes inserting the fastener all the way through the pipe test plug and through a second opening in the water supply line.

19. A method of pressure testing a water supply line as defined in claim 18 wherein the fastener is a self-tapping screw and the step of inserting the fastener through the first opening, the test plug and the second opening includes forming the openings with the self-tapping screw.

20. A method of pressure testing a water supply line as defined in claim 17 wherein the fastener is a self-tapping screw and the step of securing the pipe test plug through the first opening includes forming the first opening with the self-tapping screw.